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D11

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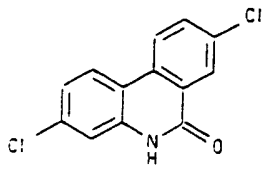
AN 1970:435200 ZCAPLUS
ON 73:35200
TI 6(5H)-phenanthridinones. III. Halo-6(5H)phenanthridinones(1,2)
AU Pan, Hsi-Lung; Fletcher, T. Lloyd
CS Sch. of Med., Univ. of Washington, Seattle, Wash., USA
SO J. Heterocycl. Chem. (1970), 7(3), 597-605
CODEN: JHTCAO
DT Journal
LA English
IT 22771-43-3P 23818-35-1P 23818-37-3P 23818-38-4P 23818-40-8P 23818-41-9P 23818-43-1P 23818-44-2P 23827-02-3P 23827-03-4P 27282-46-8P 27353-44-2P 27353-46-4P 27353-47-5P 27353-48-6P 27353-49-7P 27353-50-0P 27353-51-1P 27353-52-2P 27353-53-3P 27353-54-4P 27353-55-5P 27353-56-6P 27353-57-7P 27353-58-8P 27353-59-9P 27353-61-3P 27353-62-4P 27353-63-5P 27375-01-5P 27375-02-6P 27375-03-7P 27375-04-8P 27375-05-9P
(prepn. of)

RN 22771-43-3 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3,8-dichloro- (8CI, 9CI) (CA INDEX NAME)



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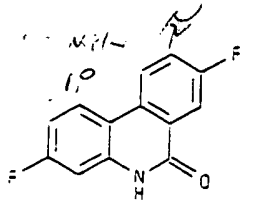
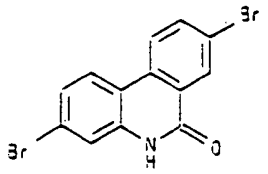
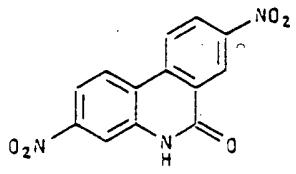


RN 23818-37-3 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3,8-dibromo- (8CI) (CA INDEX NAME)

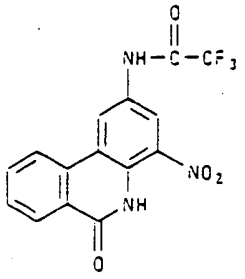
RN 23818-37-3 ZCAPLUS



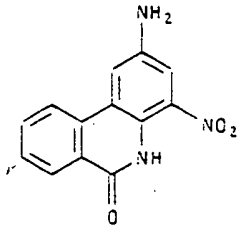
RN 23818-38-4 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3,8-dinitro- (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 23818-40-8 ZCAPLUS
CN Acetamide, *N*-(5,6-dihydro-4-nitro-6-oxo-2-phenanthridinyl)-2,2,2-trifluoro- (8CI) (CA INDEX NAME)



RN 23818-41-9 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2-amino-4-nitro- (8CI, 9CI) (CA INDEX NAME)



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AN 1970:121337 ZCAPLUS

DN 72:121337

TI 6(5H)-phenanthridinones. II. Preparation of substituted 6(5H)-phenanthridinones from 9-oxofluorenes

AU Pan, Hsi-Lung; Fletcher, T. Lloyd

CS Sch. of Med., Univ. of Washington, Seattle, Wash., USA

SO J. Heterocycl. Chem. (1970), 7(2), 313-21
CODEN: JHTCAD

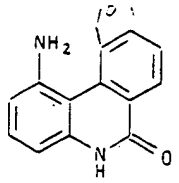
DT Journal

LA English

IT 17613-44-4P 26689-63-4P 26689-64-5P 26689-65-6P 26689-66-7P 26689-67-8P 26689-68-9P 26689-69-0P 26689-70-3P 26689-98-5P 26689-99-6P 26690-00-6P 26690-02-8P 26690-03-9P 26690-04-0P 26844-82-6P 26844-83-7P 26844-84-8P
(prepn. of)

RN 17613-44-4 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 1-amino- (8CI, 9CI) (CA INDEX NAME)



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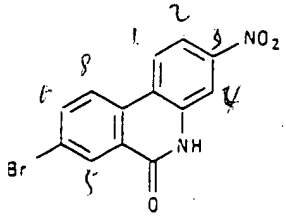

RN 26689-64-5 ZCAPLUS

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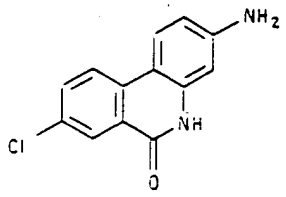
RN 26689-64-5 ZCAPLUS



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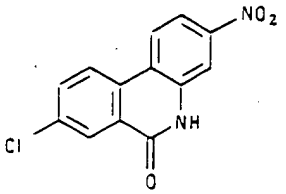

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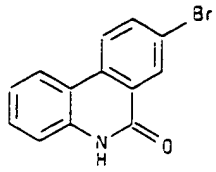

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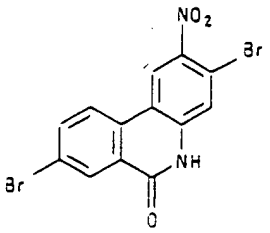
CN 6(5*H*)-Phenanthridinone, 3,8-dibromo-2-nitro- (8CI) (CA INDEX NAME)



RN 26689-68-9 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3,8-dichloro-2-nitro- (8CI) (CA INDEX NAME)

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AN 1995:416436 ZCAPLUS

DN 122:170250

TI Pharmaceutical compositions containing inhibitors of proteic ADP ribosylation are useful to prevent the diabetes mellitus complications

IN Gorio, Alfredo; Borella, Fabio

PA Instituto Biochimico Italiano Giovanni Lorenzini S.p.A., Italy

SO Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP-638309	A1	19950215	94EP-0110805	19940712

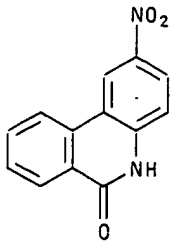
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE

PRAI 93IT-MI01554 19930714

IT 78256-30-1, 2-Nitro-6-(5*H*)-phenanthridinone
(pharmaceutical compns. contg. inhibitors of proteic ADP ribosylation for prevention of diabetes mellitus complications)

RN 78256-30-1 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 2-nitro- (6CI, 9CI) (CA INDEX NAME)



AB Pharmaceutical compns. contg. inhibitors of proteic ADP ribosylation are useful to prevent the diabetes mellitus complications such as neuropathies, nephropathies, retinopathies, macroangiopathies, microangiopathies, and hepatopathies. The effectiveness of vitamin K1 in decreasing blood glucose level of diabetic rats is reported. A hard gelatin pearl contained vitamin K1 10, lactose 62, maize starch 27, and Mg stearate 1mg.

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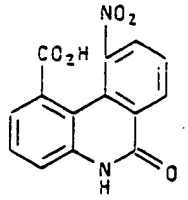
AN CA62:5259f CAOLD

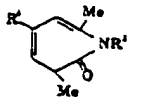
IT 793-95-3

RN 793-95-3 CAOLD

CN 1-Phenanthridinecarboxylic acid, 5,6-dihydro-10-nitro-6-oxo- (7CI, 9CI) (CA INDEX NAME)



3.5 g. 51.5% NaH suspension, and 10.9 g. EtBr was prepd. 9.8 g. IIb, b_{11} 115–19°, n_D^{25} 1.5070. A 14.5 g. yield of IIa was also prepd. by adding 16.4 g. of ClNHMe in 250 ml. Et_2O at −70° to the Na phenolate from 6.9 g. Na in 167 g. 2,4,6-trimethylphenol at 120–40°. From 16.4 g. ClNHMe and 6.9 g. Na in 150 g. 2,6-dimethylphenol was recovered 7.1 g. III, b_{11} 109–15°. Hydro-

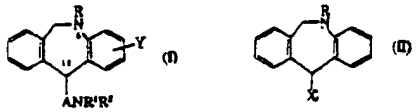


(I, R' = Me, R² = H)
(IIa, R' = Me, R² = Me)
(IIb, R' = Me, R² = Et)
(III, R' = H, R² = Me)

genation of 33 g. IIa in the presence of 0.3 g. Pt oxide gave 1,3,5,7-tetramethylhexahydroazepin-2-one (IV). Redn. of 16.9 g. IV with 3.8 g. $LiAlH_4$ in 150 ml. Et_2O gave 1,2,4,6-tetramethylhexahydroazepine. II are useful as fungicides and as comonomers with other lactams in prepg. polyamide copolymers.

E. Plueddemann

Substituted 5,6-dihydromorphanthridines. Lakeside Laboratories, Inc. (by Alexander E. Drukker and Claude I. Judd). Fr. 1,372,741 (Cl. A 61k, C 07d), Sept. 18, 1964; U.S. Appl. Sept. 12, 1962 and Aug. 23, 1963; 40 pp. The title compds. (I) were synthesized by the conversion of 5-substituted-5,6-dihydromorphanthridines to C-11 metal salts and subsequent reaction



(I) (II)

with the appropriate halides. Thus, a soln. of 31.4 g. 5-methyl-5,6-dihydromorphanthridine (II, X = H, R = Me) in 265 cc. tetrahydrofuran, cooled in ice H_2O, was treated with 0.165 mole BuLi in 150 cc. Et_2O over 30 min. and the mixt. stirred at room temp. 5 hrs., treated with a soln. of 18.3 g. freshly distd. $Me_2N(CH_2)_3Cl$ in 90 cc. Et_2O over 40 min., stirred 9 hrs. at room temp., washed with water, dried over $CaSO_4$, filtered, and distd. twice through a short column to give 28.9 g. 11-(3-dimethylaminopropyl)-5-methyl-5,6-dihydromorphanthridine (I, Y = H, A = $(CH_2)_3$, R = R¹ = R² = Me), very viscous liquid, $b_{0.15}$ 156–9°; the HCl salt was a gray, hygroscopic solid. Similarly prepd. were the I as tabulated. Also, heterocyclic derivs. (II) of I were

A	R	R'	R¹	Y	b.p./mm.	m.p. dicyclohexylsulfamate
$(CH_2)_3$	Me	$PhCH_2$	Me	H	225°/0.2	119°
$(CH_2)_3$	$PhCH_2$	Me	Me	H	210–25°/0.12	127–31°
$CHMeCH_2CH_2$	Me	Me	Me	H	145–7.5°/0.12	120°
$(CH_2)_3$	Me	$PhCH_2$	Me	2-Cl	163–70°/0.35	122–4°

prepd. by this method (R, X, and b.p. given): Me, 1-methyl-4-piperidyl, $b_{0.1}$ 162–7° (m. 88–9°); Me, 3-piperidinopropyl, $b_{0.05}$ 190°; Me, 3-(4-methylpiperazino)propyl, $b_{0.1}$ 195°. Treatment of I (R¹ = $PhCH_2$) with $ClCO_2Me$ or a related compd. yields an isolable carbamate, which can be hydrolyzed to I (R¹ = H). Thus, 7.4 g. I [A = $(CH_2)_3$, R = R¹ = Me, R² = $PhCH_2$, Y = H] and 2.42 g. ClCOSMe in 20 cc. C_6H_6 was refluxed 24 hrs., the mixt. steam distd., the residue dissolved in C_6H_6, and the soln. washed with dil. HCl and H_2O, dried, and concd. to give 6.6 g. I [A = $(CH_2)_3$, R = R¹ = Me, R² = MeSCO, Y = H] (III), a yellow oil. III (9.85 g.), 7 g. $Ba(OH)_2 \cdot 8H_2O$, and 55 cc. $HOCH_2CH_2OH$ was refluxed 9 hrs., the mixt. poured into H_2O and filtered, the residue washed with C_6H_6, and the combined filtrates were extd. with C_6H_6. The org. layer was extd. with dil. HCl, which was washed with ether, chilled, made alk. with KOH, and extd. with ether. The ether sol. was dried over K_2CO_3, evapd., and distd. to give 2.35 g. I [A = $(CH_2)_3$, R = R¹ = Me, R² = H, Y = H], $b_{0.05}$ 170°. Similarly prepd. were the following I (A, R, R¹, R², Y, and b.p. given): $(CH_2)_3$, Me, CO_2Et, Me, 2-Cl, $b_{0.4}$ 215–20°; $(CH_2)_3$, Me, Me, H, 2-Cl, — (di-HCl salt m. 192–4°). These new compds. possess anticholinergic, analgesic, antispasmodic, antidepressant, and tranquillizing activity. They are also useful as neutralizing agents in the purification of penicillin.

Virginia F. Stout

See also: Physical Organic Chemistry, Section 32. Electrochem. oxidn. of ω-amino acids and their lactams (Mizuno) 15. Dehydroacetic acid and its derivs. [lutidones] (Edwards) 33. Hydration of α-acetylenic δ-ethylenic alcs. [pyrones] (Colonge) 33. Ketenes reactions—reactions between ketene acetals and diphenylketene [pyrandiones] (Scarpati) 35. Synthetic applications of activated metal catalysts—action of degassed Raney Ni on *N*-alkyl-*o*-alkylanilines—formation of carbazole from aniline and related compds. in the presence of degassed Raney Ni (Jackson) 35. Synthesis of dibenzo[*a*,*g*]biphenylene [dinaphthofurans] (Barton) 36. Two strong electron acceptors—naphthalene-1,4,5,8-tetracarboxylic acid dianhydride and its bromo deriv. (Jacquignon) 36. Syntheses with 5-nitro-2-furonitrile (Sherman) 38. 1-Aminoindoles—novel rearrangement of 1,4-dihydrocinnolines [indoles] (Haddlesey) 38. H-abstracting reactions—deuteration of pyridines and pyridazines (Kawazoe) 38. Synthetic studies of flavonoids—synthesis of eryodictiol 7-β-D-glucoside and its methyl ether (Tarusova) 43. Synthesis of indomethacin metabolites (Strachan) 43. α-Pyrone-6-carboxylic acid derivs.—structure of stizolobic and stizolobinic acids, two novel amino acids from *Stizolobium hassjoo* (Senoh) 44. New indigo synthesis (Ziegler) 46. Dyes for synthetic fibers—cationic azo dyes with or without heterocyclic nuclei (Spiliadis) 46. Catalytic reactions involving azomethines—rates and equilibria of imine formation with 3-hydroxypyridine-4-aldehyde and amino acids (French) 56.

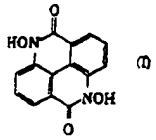
Patents: Phenylcycloalkanecarbonylurea and its acyl deriv. [pyrans] (Takamatsu) 34. 2-*N*-Substituted aminopurine derivs. [furans] (Okumura) 38. Nitrothiazole derivs. having nitrofuryl group (Sugihara) 38. Diazidocarbazoledisulfonic acids (Grotta) 46.

38—HETEROCYCLIC COMPOUNDS—(More Than One Hetero Atom)

F. E. BRAUNS, C. M. KOSOLAPOFF, AND EDITOR EMERITUS CHARLES A. ROUILLER

TWO OR MORE HETERO ATOMS IN DIFFERENT FUSED RINGS

The peracid oxidation of 4,9-diazapyrene. M. Gawlak and R. F. Robbins. *J. Chem. Soc.* 1964(Dec.), 5135–9(Eng). The prepn. of 4,9-dihydroxy-4,9-diazapyrene-5,10-dione (I) confirms this as the product of oxidn. of 4,9-diazapyrene by AcOOH. An intermediate oxidn. product, the "*C*-hydroxy-compd." is shown to be 4-hydroxy-4,9-diazapyren-5-one. The lactam resulting from its redn. has been synthesized. A possible



(I)

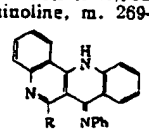
mechanism for the formation of hydroxamic acids from 4,9-diazapyrene is discussed. Some examples of intramol. nucleophilic displacement in 2,2'-disubstituted biphenyls are described and a mechanism suggested for the reaction of 4-hydroxy-4,9-diazapyren-5-one with $POCl_3$.

RCJR

Benzodiazaanthracene derivatives from triarylguanidine. II. J. Moszew and E. Sledziewska (Jagiellonski Univ., Krakow, Poland). *Bull. Acad. Polon. Sci., Ser. Sci. Chim.* 12(6), 399–402(1964)(Ger). Condensation of BzMe with 2-$C_{10}H_7N$:C-$(NHPh)_2$ at 200–300° yielded I, m. 293°. II (R = NPh) m. 231–2°, was prepd. and found not identical with I. Hydrolysis with HCl gave II (R = O), m. 350°, different from the hydrolysis product of I. I was reduced with Zn to the anilino analog, m. 251–3°.

J. U. Veldema

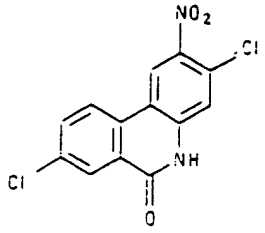
Anthracenyl derivatives of quinoline and benzodiazaanthracene. J. Moszew and T. Zyczkowska (Jagiellonskie Univ., Krakow). *Bull. Acad. Polon. Sci., Ser. Sci. Chim.* 12(7), 451–4 (1964)(Ger). Condensation of 1- (I) and 2-acetoanthracene (II) with $(PhNH)_2C$:NPh (III) and various diarylthioureas was investigated. I and III heated at 200–90° gave AcOH-sol. 2-(1-anthryl)-4-anilinoquinoline, m. 246°, also obtained by heating I with $(PhNH)_2CS$ (IV), and (difficultly sol. in AcOH) anil (V), R = 1-anthryl) of 1,2-benzo-4-(1-anthryl)-3,9-diazaanthrone. Reaction of I with $(4\text{-}MeC_6H_4NH)_2CS$ gave 2-(1-anthryl)-4-(4-toluidino)-6-methylquinoline, m. 269–70°, which heated with



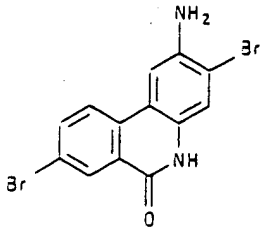
(V)

alc. KOH under pressure gave the 4-hydroxy analog, m. 306–7°. Reaction of I with $(2\text{-}C_{10}H_7NH)_2CS$ (VI) gave 2-(1-anthryl)-4-(2-naphthylamine)-5,6-benzoquinoline, m. 230°, hydrolyzed by

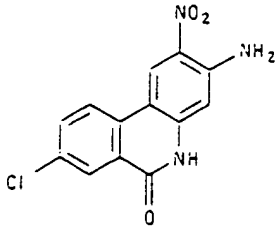
RN 26689-68-9 ZCAPLUS



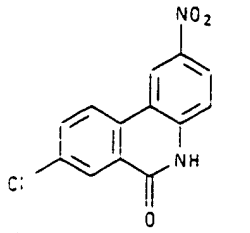
RN 26689-69-0 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2-amino-3,8-dibromo- (8CI) (CA INDEX NAME)



RN 26689-70-3 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3-amino-8-chloro-2-nitro- (8CI) (CA INDEX NAME)

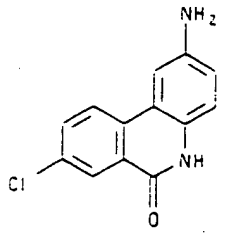


RN 26689-98-5 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 8-chloro-2-nitro- (8CI) (CA INDEX NAME)

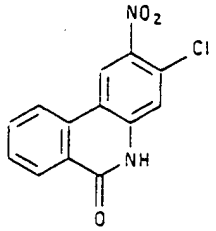


RN 26689-98-5 ZCAPLUS

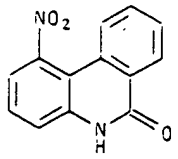
RN 26689-99-6 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2-amino-8-chloro- (8CI) (CA INDEX NAME)



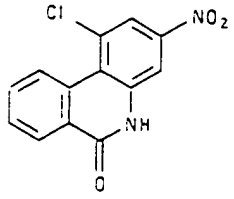
RN 26690-00-6 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3-chloro-2-nitro- (8CI) (CA INDEX NAME)



RN 26690-02-8 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 1-nitro- (8CI) (CA INDEX NAME)

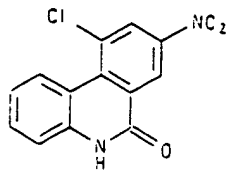


RN 26690-03-9 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 1-chloro-3-nitro- (8CI) (CA INDEX NAME)

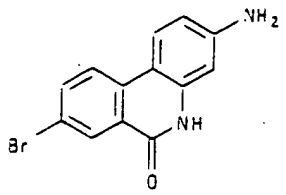


RN 26690-03-9 ZCAPLUS

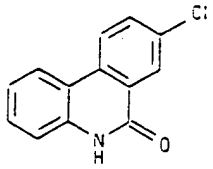
RN 26690-04-0 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 10-chloro-8-nitro- (8CI) (CA INDEX NAME)



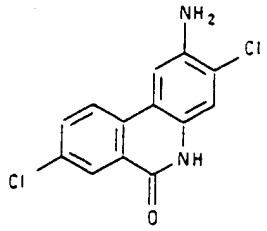
RN 26844-82-6 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3-amino-8-bromo- (8CI) (CA INDEX NAME)



RN 26844-83-7 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 8-chloro- (8CI) (CA INDEX NAME)



RN 26844-84-8 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2-amino-3,8-dichloro- (8CI) (CA INDEX NAME)

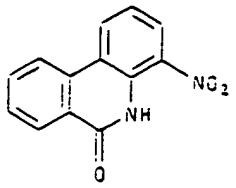


AB A no. of 6(5H)-phenanthridinones were prepd. from 9-oxofluorenes via the Schmidt reaction.

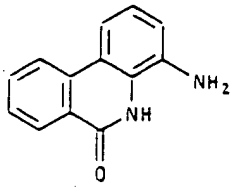
RN 26844-84-8 ZCAPLUS

All the aminoand nitro-9-oxofluorenes used gave substituted 6(5H)-phena n-thridinones with the amino or nitro group situated in the benzene ring attached to the N of the lactam group. Uv and ir spectral data are given.

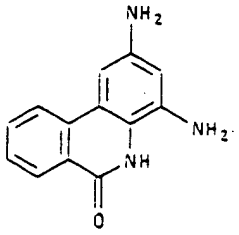
RN 23818-43-1 ZCAPLUS
RN 23818-43-1 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 4-nitro- (6CI, 8CI, 9CI) (CA INDEX NAME)



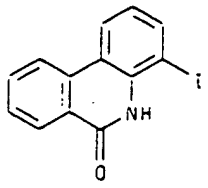
RN 23818-44-2 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 4-amino- (8CI, 9CI) (CA INDEX NAME)



RN 23827-02-3 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2,4-diamino- (8CI) (CA INDEX NAME)

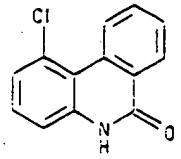


RN 23827-03-4 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 4-iodo- (8CI) (CA INDEX NAME)

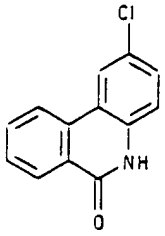


RN 27282-46-8 ZCAPLUS

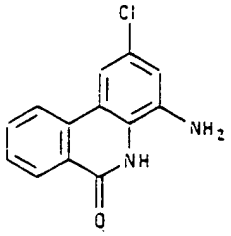
RN 27282-46-8 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 1-chloro- (8CI) (CA INDEX NAME)



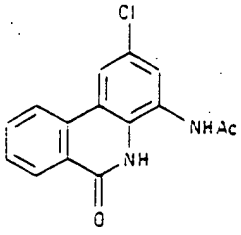
RN 27353-44-2 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2-chloro- (6CI, 8CI, 9CI) (CA INDEX NAME)



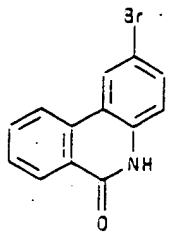
RN 27353-46-4 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 4-amino-2-chloro- (8CI) (CA INDEX NAME)



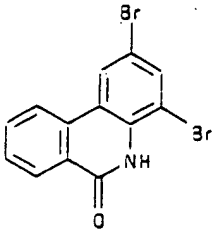
RN 27353-47-5 ZCAPLUS
CN Acetamide, *N*-(2-chloro-5,6-dihydro-6-oxo-4-phenanthridinyl)- (8CI) (CA INDEX NAME)



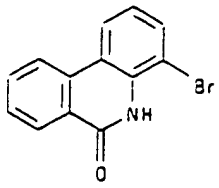
RN 27353-48-6 ZCAPLUS
RN 27353-48-6 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2-bromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



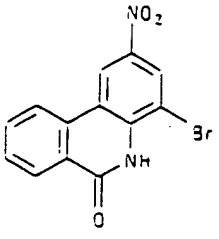
RN 27353-49-7 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2,4-dibromo- (7CI, 8CI) (CA INDEX NAME)



RN 27353-50-0 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 4-bromo- (8CI) (CA INDEX NAME)

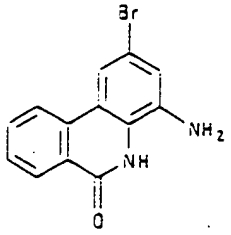


RN 27353-51-1 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 4-bromo-2-nitro- (8CI) (CA INDEX NAME)

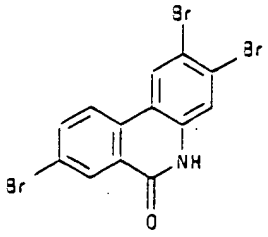


RN 27353-51-1 ZCAPLUS

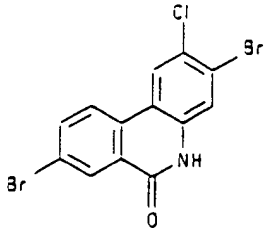
RN 27353-52-2 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 4-amino-2-bromo- (8CI) (CA INDEX NAME)



RN 27353-53-3 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2,3,8-tribromo- (8CI) (CA INDEX NAME)

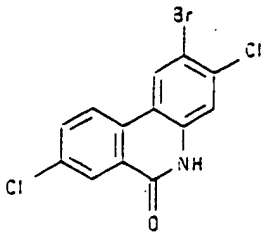


RN 27353-54-4 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3,8-dibromo-2-chloro- (8CI) (CA INDEX NAME)

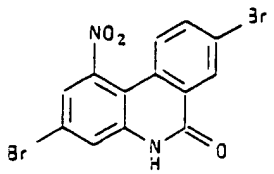


RN 27353-55-5 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2-bromo-3,8-dichloro- (8CI) (CA INDEX NAME)

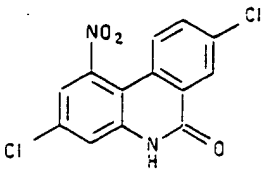
RN 27353-55-5 ZCAPLUS



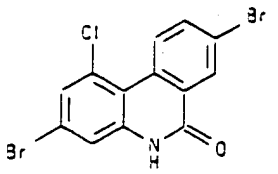
RN 27353-56-6 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3,8-dibromo-1-nitro- (8CI) (CA INDEX NAME)



RN 27353-57-7 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3,8-dichloro-1-nitro- (8CI) (CA INDEX NAME)

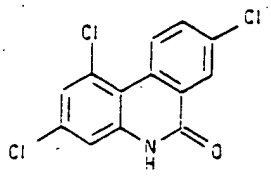


RN 27353-58-8 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3,8-dibromo-1-chloro- (8CI) (CA INDEX NAME)

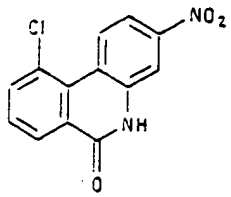


RN 27353-59-9 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 1,3,8-trichloro- (8CI) (CA INDEX NAME)

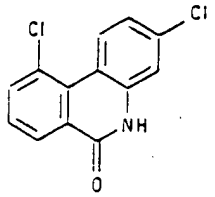
RN 27353-59-9 ZCAPLUS



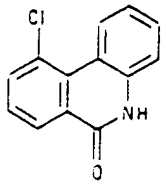
RN 27353-61-3 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 10-chloro-3-nitro- (8CI) (CA INDEX NAME)



RN 27353-62-4 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3,10-dichloro- (8CI) (CA INDEX NAME)

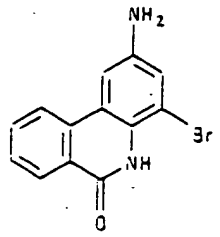


RN 27353-63-5 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 10-chloro- (8CI) (CA INDEX NAME)

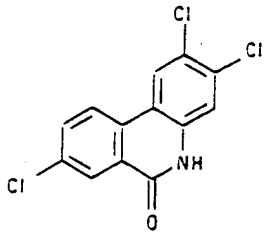


RN 27375-01-5 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2-amino-4-bromo- (8CI) (CA INDEX NAME)

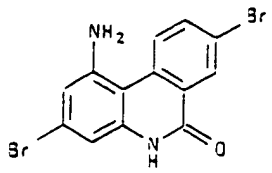
RN 27375-01-5 ZCAPLUS



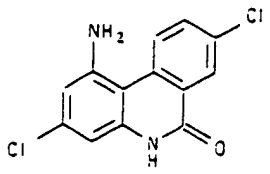
RN 27375-02-6 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2,3,8-trichloro- (8CI) (CA INDEX NAME)



RN 27375-03-7 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 1-amino-3,8-dibromo- (8CI) (CA INDEX NAME)

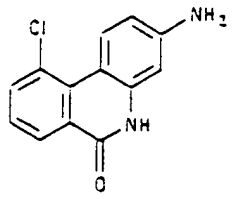


RN 27375-04-8 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 1-amino-3,8-dichloro- (8CI) (CA INDEX NAME)



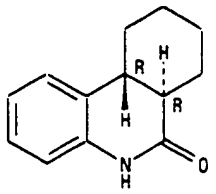
RN 27375-05-9 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3-amino-10-chloro- (8CI) (CA INDEX NAME)

RN 27375-05-9 ZCAPLUS

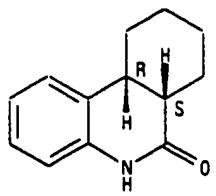


AB Halogenation of 6(5H)-phenanthridinone or its 3,8-dihalo derivs. with N-bromo- or N-chlorosuccinimide in DMF gives the corresponding 2-halophenanthridinones. Further halogenation of 2-halo-6(5H)-phenanthridinone with the appropriate N-halosuccinimide, in the same medium, gives the corresponding 2,4-dihalo derivs. 1,3,8-Trihalo-6(5H)-phenanthridinones are prepd. from the 1-nitro derivs., which are obtained by a Schmidt rearrangement of 2,7-dihalo-4-nitro-9-oxofluorenes. Similarly, rearrangement and further reaction of 2-nitro-5-chloro-9-oxofluorene leads to 3,10-dichloro-6(5H)-phenanthridinone.

L26 ANSWER 24 OF 25 ZCAPLUS COPYRIGHT 1997 ACS
AN 1973:29595 ZCAPLUS
DN 78:29595
TI Hexahydrogenated derivatives of phenanthridone obtained by Birch reaction
AU Michailidis, Anastase; Brouard, Jean Paul; Resplandy, Albert
CS Lab. Chim. Appl., Mus. Natl. Hist. Nat., Paris, Fr.
SO C. R. Acad. Sci., Ser. C (1972), 275(17), 961-4
CODEN: CHDCAQ
DT Journal
LA French
GI For diagram(s), see printed CA Issue.
AB The hexahydrophenanthridinone, m. 174.degree., obtained by Birch redn. of 5-benzylphenanthridinone was identified as a cis-trans mixt. of 6a,7,8,9,10,10a-hexahydro-6-phenanthridinone, by redn. to its 5,6,6a,7,8,9,10,10a-octahydro deriv., which was sepd. into its isomers by preparative gas chromatog.
IT ***39161-10-9P*** ***39161-20-1P***
(by Birch redn. of benzylphenanthridinone)
RN 39161-10-9 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 6a,7,8,9,10,10a-hexahydro-, *trans*- (9CI) (CA INDEX NAME)
Relative stereochemistry.



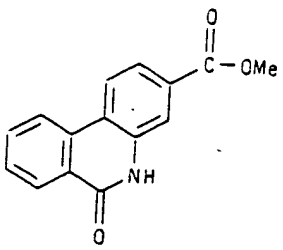
RN 39161-20-1 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 6a,7,8,9,10,10a-hexahydro-, *cis*- (9CI) (CA INDEX NAME)
Relative stereochemistry.



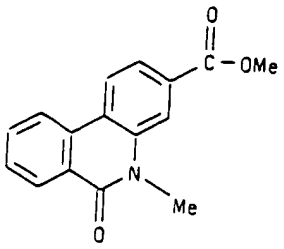
****

L9 ANSWER 4 OF 6 CAPLUS COPYRIGHT 1998 ACS
ACCESSION NUMBER: 1973:29595 CAPLUS
DOCUMENT NUMBER: 78:29595
TITLE: Hexahydrogenated derivatives of phenanthridone obtained by Birch reaction
AUTHOR(S): Michailidis, Anastase; Brouard, Jean Paul; Resplandy, Albert
CORPORATE SOURCE: Lab. Chim. Appl., Mus. Natl. Hist. Nat., Paris, Fr.
SOURCE: C. R. Acad. Sci., Ser. C (1972), 275(17), 961-4
CODEN: CHDCAQ
DOCUMENT TYPE: Journal
LANGUAGE: French
GI For diagram(s), see printed CA Issue.
AB The hexahydrophenanthridinone, m. 174.degree., obtained by Birch redn. of 5-benzylphenanthridinone was identified as a cis-trans mixt. of 6a,7,8,9,10,10a-hexahydro-6-phenanthridinone, by redn. to its 5,6,6a,7,8,9,10,10a-octahydro deriv., which was sepd. into its isomers by preparative gas chromatog.
IT ***39161-10-9P***
(by Birch redn. of benzylphenanthridinone)

AN 1973:29593 ZCAPLUS
DN 78:29593
TI Phenanthridine series. I. Synthesis and pharmacological properties of 6-phenanthridonecarboxylic acids
AU Cerbai, G.; Turbanti, L.; Baldacci, G. P.; Tellini, N.
CS Sez. Chim. Farmacol., Guidotti and Cie., Pisa, Italy
SO Farmaco, Ed. Sci. (1972), 27(11), 939-54
CODEN: FRPSAX
DT Journal
LA Italian
IT 39180-41-1 39180-45-5
(hydrolysis of)
RN 39180-41-1 ZCAPLUS
CN 3-Phenanthridinecarboxylic acid, 5,6-dihydro-6-oxo-, methyl ester (9CI) (CA INDEX NAME)

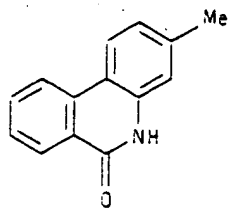


RN 39180-45-5 ZCAPLUS
CN 3-Phenanthridinecarboxylic acid, 5,6-dihydro-5-methyl-6-oxo-, methyl ester (9CI) (CA INDEX NAME)



IT 39161-53-0
(oxidn. of)
RN 39161-53-0 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3-methyl- (7CI, 9CI) (CA INDEX NAME)

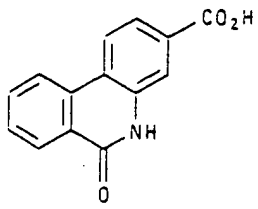
RN 39161-53-0 ZCAPLUS



IT 39161-52-9P 39180-44-4P 39180-46-6P
(prepn. of)

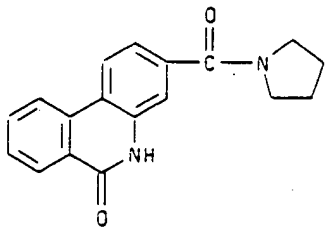
RN 39161-52-9 ZCAPLUS

CN 3-Phenanthridinecarboxylic acid, 5,6-dihydro-6-oxo- (9CI) (CA INDEX NAME)



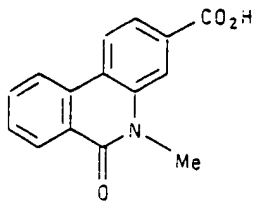
RN 39180-44-4 ZCAPLUS

CN Pyrrolidine, 1-[(5,6-dihydro-6-oxo-3-phenanthridinyl)carbonyl]- (9CI) (CA INDEX NAME)



RN 39180-46-6 ZCAPLUS

CN 3-Phenanthridinecarboxylic acid, 5,6-dihydro-5-methyl-6-oxo- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

RN 39180-46-6 ZCAPLUS

AB Phenanthridinones (I; R = H, Me; R1 = OH, 1-pyrrolidinyl) and phenanthridines (II; R2 = Me, Cl, OMe; R3 = H, Me) were synthesized by 3 paths. Oxidn. of 3,6-dimethylphenanthridine, gave I (R = H, R1 = OH). Me 4-amino-3-nitrobenzoate, .fwdarw. 2,4-O2N(MeO2C)C2H3PF.fwdarw.2,4-AcNH(MeO2C)C6H3Ph.fwdarw.II(R2 = R3 = Me).fwdarw.I(R = H, R1 = OMe). 9-Fluorenone-2-carbonyl chloride.fwdarw.the 2-carbonylpyrrolidine deriv..fwdarw.I (R = H, R1 = 1-pyrrolidinyl).fwdarw.I (R = H, R1 = OH) I and II had a superficial analgesic effect comparable to that of aspirin.

STN INTERNATIONAL®

ZCAPLUS COPYRIGHT 1999 ACS

AN 1973:84227 ZCAPLUS

DN 78:84227

TI Synthesis of 6(5H)-phenanthridinones from 3,4-disubstituted coumarins and their reaction with methylmagnesium iodide to phenanthridinium iodides

AU Kraatz, Udo; Korte, Kriedhelm

CS Org.-Chem. Inst., Univ. Bonn, Bonn, Ger.

SO Chem. Ber. (1973), 106(1), 62-8
CODEN: CHBEAM

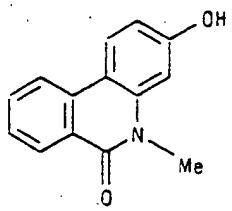
DT Journal

LA German

IT 40684-02-4P 40684-03-5P 40684-05-7P 40684-06-8P 40684-11-5P
(prepn. of)

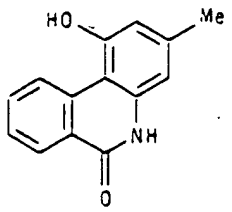
RN 40684-02-4 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 3-hydroxy-5-methyl- (9CI) (CA INDEX NAME)



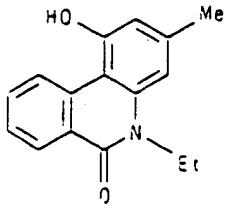
RN 40684-03-5 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 1-hydroxy-3-methyl- (9CI) (CA INDEX NAME)



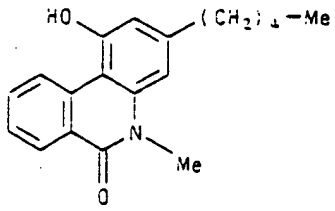
RN 40684-05-7 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 5-ethyl-1-hydroxy-3-methyl- (9CI) (CA INDEX NAME)

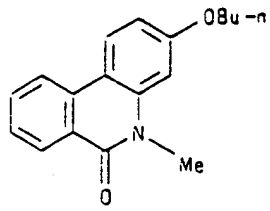


RN 40684-05-7 ZCAPLUS

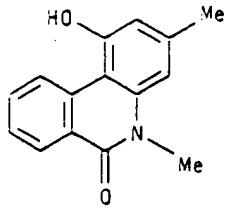
RN 40684-06-8 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 1-hydroxy-5-methyl-3-pentyl- (9CI) (CA INDEX NAME)



RN 40684-11-5 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3-butoxy-5-methyl- (9CI) (CA INDEX NAME)



IT 40684-04-6
(quaterization of)
RN 40684-04-6 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 1-hydroxy-3,5-dimethyl- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB Reaction of the coumarins I and II (R = Me, C5H11, or OH; R1 = OH or H) with R2NH2 (R2 = H, Me, or Et) gave 15-80% III and IV, resp., some of which were reacted with MeMgI to give the corresponding phenanthridinium compds. IV (R = BuO, R1 = H, R2 = Me) also gave the 5,6,6-trimethyl compd. The compds. were characterized by ir and NMR spectral data.

STN INTERNATIONAL®

AN 1974:437489 ZCAPLUS

ON 81:37489

TI Compounds with stomach acid-prevention action

IN Cerbai, Guido; Murmann, Walter

PA Laboratorio Guidotti e C.S.p.A.

SO Ger. Offen., 31 pp.
CODEN: GWXXBX

DT Patent

LA German

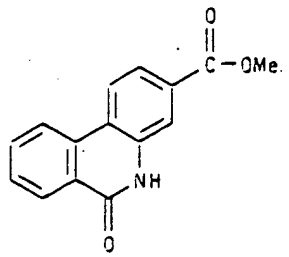
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE2355084	A1	19740516	73DE-2355084	19731103
	ZA7308479	A	19741127	73ZA-0008479	19731105
	BE-806984	A1	19740301	73BE-0137466	19731106
	NL7315191	A	19740508	73NL-0015191	19731106
	FR2205333	A1	19740531	73FR-0039363	19731106
	JP49133376	A2	19741221	73JP-0125242	19731106
PRAI	72IT-0031319		19721106		

IT 39180-41-1P 39180-44-4P 52901-16-3P
(prepn. and hydrolysis of)

RN 39180-41-1 ZCAPLUS

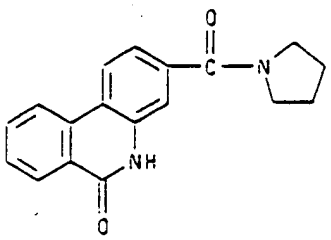
CN 3-Phenanthridinecarboxylic acid, 5,6-dihydro-6-oxo-, methyl ester (9CI) (CA INDEX NAME)



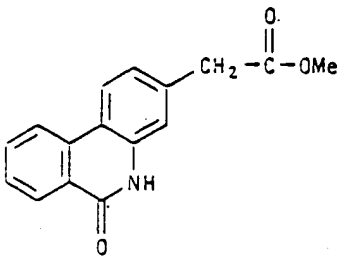
RN 39180-44-4 ZCAPLUS

CN Pyrrolidine, 1-[(5,6-dihydro-6-oxo-3-phenanthridinyl)carbonyl]- (9CI) (CA INDEX NAME)

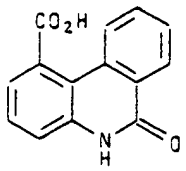
RN 39180-44-4 ZCAPLUS



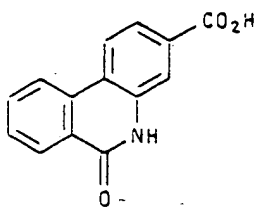
RN 52901-16-3 ZCAPLUS
CN 3-Phenanthridineacetic acid, 5,6-dihydro-6-oxo-, methyl ester (9CI) (CA INDEX NAME)



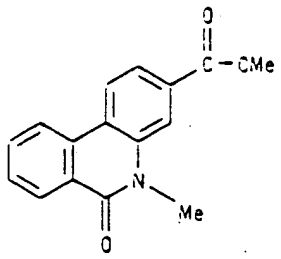
IT 17726-57-7P 39161-52-9P 39180-45-5P 39180-46-6P 52901-13-0P 52901-15-2P
(prepn. of)
RN 17726-57-7 ZCAPLUS
CN 1-Phenanthridinecarboxylic acid, 5,6-dihydro-6-oxo- (8CI, 9CI) (CA INDEX NAME)



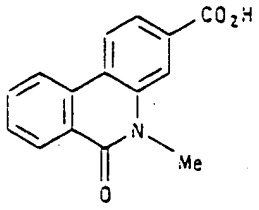
RN 39161-52-9 ZCAPLUS
CN 3-Phenanthridinecarboxylic acid, 5,6-dihydro-6-oxo- (9CI) (CA INDEX NAME)



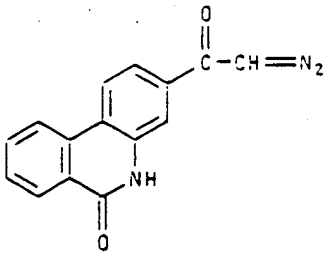
RN 39180-45-5 ZCAPLUS
RN 39180-45-5 ZCAPLUS
CN 3-Phenanthridinecarboxylic acid, 5,6-dihydro-5-methyl-6-oxo-, methyl ester (9CI) (CA INDEX NAME)



RN 39180-46-6 ZCAPLUS
CN 3-Phenanthridinecarboxylic acid, 5,6-dihydro-5-methyl-6-oxo- (9CI) (CA INDEX NAME)

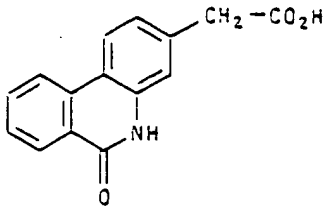


RN 52901-13-0 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 3-(diazoacetyl)- (9CI) (CA INDEX NAME)



RN 52901-15-2 ZCAPLUS
CN 3-Phenanthridineacetic acid, 5,6-dihydro-6-oxo- (9CI) (CA INDEX NAME)

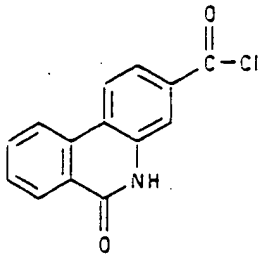
RN 52901-15-2 ZCAPLUS



IT 52901-14-1
(reaction of, with nitromethylurea)

RN 52901-14-1 ZCAPLUS

CN 3-Phenanthridinecarbonyl chloride, 5,6-dihydro-6-oxo- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB The oxophenanthridine-carboxylic acid I (R = H, n = 0) was prepd. by acetylating 4,3-Ph(H2N)C6H3CO2Me and cyclizing with POCl3 to Me 6-methylphenanthridine-3-carboxylate, which was oxidized to the Me ester of I (R = H, n = 0) and hydrolyzed. I (R = Me, n = 0; R = H, n = 1) were prepd. similarly.

STN INTERNATIONAL®

AN 1973:58193 ZCAPLUS

DN 78:58193

TI Phenanthridones by the Meerwein reaction

AU Mondon, Albert; Schattka, Kay; Krohn, Karsten

CS Inst. Org. Chem., Univ. Kiel, Kiel, Ger.

SO Chem. Ber. (1972), 105(11), 3748-53
CODEN: CHBEAM

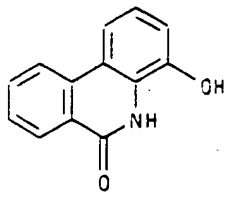
DT Journal

LA German

IT 39954-28-4P
(prepn. of)

RN 39954-28-4 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 4-hydroxy- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB The benzopyrones I (R = R1 = H or RR1 = OCH2O, X = O) were prepd. by diazotizing 2,4,5-H2NRR1C6H2CO2Me and treatment of the diazonium salt obtained with Cu(OAc)2 in the presence of II. Treatment of I with NH3 and subsequent hydrolysis gave I (X = NH). Dehydrogenation of I (R = R1 = H, X = O or NH and RR1 = OCH2O, X = NH) gave the corresponding III. The synthesis of narciprimine by this method failed because the Meerwein product I (RR1 = OCH2O, X = O) could not be nitrated at C-7.

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ZCAPLUS COPYRIGHT 1999 ACS

AN 1973:123624 ZCAPLUS

DN 78:123624

TI Effect of biphenyl geometry and substituents on the multiplicity and efficiency of the photocyclization reactions of 2-substituted biphenyls

AU Swenton, John S.; Ikeler, Theodore J.; Smyser, G. LeRoy

CS Dep. Chem., Ohio State Univ., Columbus, Ohio, USA

SO J. Org. Chem. (1973), 38(6), 1157-66
CODEN: JOCEAH

DT Journal

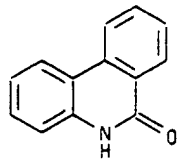
LA English

IT 1015-89-0P 38088-94-7P 38088-95-8P 38088-96-9P 38088-97-0P 38088-98-1P 38088-99-2P

(prepn. and NMR of)

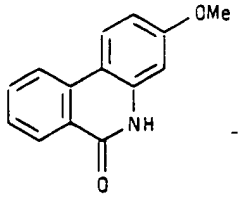
RN 1015-89-0 ZCAPLUS

CN 6(5*H*)-Phenanthridinone (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



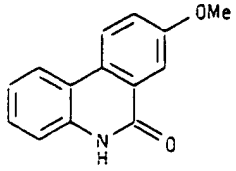
RN 38088-94-7 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 3-methoxy- (6CI, 9CI) (CA INDEX NAME)

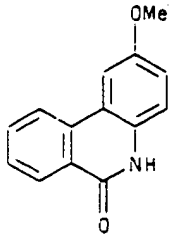


RN 38088-95-8 ZCAPLUS

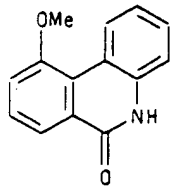
CN 6(5*H*)-Phenanthridinone, 8-methoxy- (6CI, 9CI) (CA INDEX NAME)



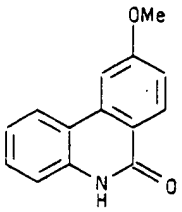
RN 38088-96-9 ZCAPLUS
RN 38088-96-9 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 2-methoxy- (9CI) (CA INDEX NAME)



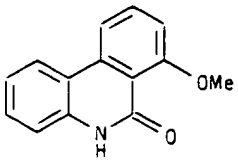
RN 38088-97-0 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 10-methoxy- (9CI) (CA INDEX NAME)



RN 38088-98-1 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 9-methoxy- (9CI) (CA INDEX NAME)



RN 38088-99-2 ZCAPLUS
CN 6(5*H*)-Phenanthridinone, 7-methoxy- (9CI) (CA INDEX NAME)



AB The direct and sensitized photochemistry of the unsubstituted, 2'-, 3'-, 4'-, 4-, and

RN 38088-99-2 ZCAPLUS

5-methoxy-2-biphenylyl isocyanates are reported. Direct excitation of these compds. yields carbazoles and 6(5H)- phenanthridinones. The carbazole arises from decompn. of the isocyanate in its singlet state to a nitrene which undergoes insertion into an aromatic C-H bond. The photocyclization of the isocyanates to 6(5H)-phenanthridinones occurs most efficiently via acetone sensitization in what is formally a non-oxidative cyclization to an aromatic ring. In contrast to the insensitivity of the singlet state decarbonylation to ring substituent, the photosensitized cyclization process is enhanced by a 4'-, 4-, or 5-methoxy group and dramatically retarded by a 2'- or 3'-methoxy substituent. The related acetone sensitized photocyclizations of N-(2-propylidene)- 2-aminobiphenyl and its 2'-, or 3'-, and 4'-methoxy derivs. to the corresponding 6,6-dimethyl-5,6-dihydrophenanthridines were also studied.

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AN 1976:477216 ZCAPLUS

DN 85:77216

TI Ring-fission of cyclic azo compounds, VII. 6-Fluoro- and 6-nitro-3-phenyl-3,4-dihydro-1,2,3-benzotriazin-4-one and their photolysis; nucleophilic substitution as a test of Suschitzky's fluorine labeling method

AU Ege, Guenter; Arnold, Philipp; Beisiegel, Edgar; Lehrer, Irmgard; Suschitzky, Hans; Price, David

CS Org.-Chem. Inst., Univ. Heidelberg, Heidelberg, Ger.

SO Justus Liebigs Ann. Chem. (1976), (5), 946-68
CODEN: JLACBF

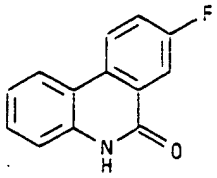
DT Journal

LA German

IT 60042-05-9P
(prepn. of)

RN 60042-05-9 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 8-fluoro- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB The photolyses of I (X = F, NO2) were studied. Products such as II and III above) occur in the photolysis, whereas the compds. I (X = 4-morpholinyl, 1-pip 1-pyrrolidinyl, cyclohexylamino, MeO) are formed via reactions of I (X = F) with amines or MeO- in dark reactions; an intramol. diazonium anilide pair is not involved.

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AN 1976:477216 ZCAPLUS

ON 85:77216

TI Ring-fission of cyclic azo compounds, VII. 6-Fluoro- and 6-nitro-3-phenyl-3,4-dihydro-1,2,3-benzotriazin-4-one and their photolysis; nucleophilic substitution as a test of Suschitzky's fluorine labeling method

AU Ege, Guenter; Arnold, Philipp; Beisiegel, Edgar; Lehrer, Irmgard; Suschitzky, Hans; Price, David

CS Org.-Chem. Inst., Univ. Heidelberg, Heidelberg, Ger.

SO Justus Liebigs Ann. Chem. (1976), (5), 946-68
CODEN: JLACBF

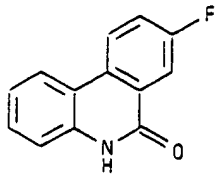
DT Journal

LA German

IT 60042-05-9P
(prepn. of)

RN 60042-05-9 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 8-fluoro- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB The photolyses of I (X = F, NO2) were studied. Products such as II and III above) occur in the photolysis, whereas the compds. I (X = 4-morpholinyl, 1-pip 1-pyrrolidinyl, cyclohexylamino, MeO) are formed via reactions of I (X = F) with amines or MeO- in dark reactions; an intramol. diazonium anilide pair is not involved.

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ZCAPLUS COPYRIGHT 1999 ACS

AN 1998:8172 ZCAPLUS

DN 128:75320

TI Preparation of quinoline derivatives and analogs as steroid receptor modulator compounds and method of progesterone receptor therapy

IN Jones, Todd K.; Goldman, Mark E.; Pooley, Charlotte Lf; Winn, David T.; Edwards, James P.; West, Sarah J.; Tegley, Christopher M.; Zhi, Lin; Hamann, Lawrence G.; Farmer, Luc J.; Davis, Robert L.

PA Ligand Pharmaceuticals Inc., USA

SO U.S., 125 pp. Cont.-in-part of U.S. Ser. No. 363,529, abandoned.
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US5696133	A	19971209	95US-0465556	19950605
	WO9619458	A2	19960627	95WO-US16096	19951213
	WO9619458	A3	19961212		
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	AU9645977	A1	19960710	96AU-0045977	19951213
	EP-800519	A1	19971015	95EP-0944089	19951213
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	CN1175247	A	19980304	95CN-0197702	19951213
	BR9510486	A	19980602	95BR-0010486	19951213
	NO9702591	A	19970814	97NO-0002591	19970606

PRAI	94US-0363529	19941222
	95US-0462643	19950605
	95US-0463231	19950605
	95US-0464360	19950605
	95US-0464541	19950605
	95US-0464546	19950605
	95US-0465429	19950605
	95US-0465556	19950605
	95WO-US16096	19951213

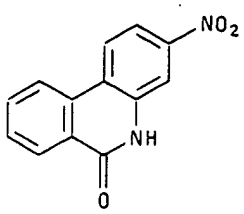
OS MARPAT 128:75320

IT 97136-57-7, 3-Nitro-6(5*H*)-phenanthridinone

(starting material; prepn. of quinoline derivs. as steroid receptor modulators and methods of use for disease treatment)

RN 97136-57-7 ZCAPLUS

CN 6(5*H*)-Phenanthridinone, 3-nitro- (6CI, 9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB Non-steroidal title compds. I-III and analogs are disclosed [wherein R^1-R^3 = H, C_{1-6} alkyl (un)substituted aryl, heteroaryl, allyl, arylmethyl, alkynyl, or alkenyl; R^4 = H, alkyl, COR^5, OR^6, NR^6R^7; R^5 = H, alkyl, (un)substituted allyl, arylmethyl, alkenyl, alkynyl, aryl, or heteroaryl; R^6, R^7 = H, alkyl, (un)substituted allyl, arylmethyl, aryl, or heteroaryl; R^9, R^{10} = H, alkyl, (un)substituted aryl, heteroaryl, allyl, arylmethyl, alkynyl, or alkenyl; R^{11} = H, alkyl, OR^6, (un)substituted allyl, etc.; R^1R^2, R^2R^3, R^1R^9, $R^{10}R^{11}$, etc. may form (un)substituted 3- to 7-membered rings; Y = O, CHR^6, NR^6; Z = (un)substituted monocyclic aryl nucleus]. The compds. are high-affinity, high-selectivity modulators of steroid receptors, and in particular are agonists or antagonists of progesterone receptors. Methods of treatment using the compds. to effect progesterone receptor therapy are claimed. The methods are used for female hormone replacement, modulating human fertility, or treating dysfunctional uterine bleeding, endometriosis, leiomyomas, osteoporosis, cancer of the breast or ovaries, or endometrial cancer. Over 350 synthetic examples are given. For instance, $Pd(PPh_3)_4$-catalyzed biaryl coupling of 3-BrC_6H_4CN with [1-(tert-butoxycarbonyl)-1,2-dihydro-2,2,4-trimethyl-6-quinolinyl]boronic acid and acidic deprotection with CF_3CO_2H gave title compd. IV in 74% yield. Selected compds. were tested in vitro and in vivo for activity at progesterone, androgen, estrogen, glucocorticoid, and mineralocorticoid receptors. In a test for antiprogestin activity in mice, both IV at 5.0 mg/day and RU-486 at 1.0 mg/day gave complete suppression of pregnancy, with this effect for IV also being reversed by the known progesterone receptor agonist promegestone at 1.0 mg/day. Five pharmaceutical formulations are described.

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